

**TECHNICAL SPECIFICATION OF 33 KV 'V' TYPE CROSS ARMS.**

- 1.1** Steel Cross Arms under the scope of this specification shall be mounted on Electric Poles and used for 33 KV lines and shall be 'V' type, made of mild steel channel of size 100×50 mm. It shall strictly conform to the details regarding its shape, size, weight and dimensions given in the drawing no. 100 (R)/ESPC-I 1/2001 enclosed and Technical Specifications given herein below. Steel Cross Arms shall be mechanically strong, rugged and robust in construction.
- 1.2** Salient features regarding the technical particulars are given below and the same shall be taken care of for strict compliance:
- (i) Mild Steel used in the Cross Arms shall conform to ISS: 2062/1975 and its latest amendments, thereof if any and shall be of reputed make (Such as TISCO/SAIL/ISCO)
  - (ii) For welding, ISI hand book of manual Metal welding and IS: 9595-1980 or its latest amendments thereof shall be followed. Electrodes to be employed in the welding shall conform to IS: 814 (Part-I): 1974 and IS: 815:1974 and their latest amendments, if any. It shall be ensured that welded joints have the same strength as that of main section.
  - (iii) Alignment of various portion and Arms shall be as per Drawing and shall not be disturbed in any case. Cross Arms shall be mounted on vertical plane and therefore its all portions/arms shall remain in one plane only.
  - (iv) Holes of size 26 mm (dia) suitable for 33 KV pin as shown on the drg. shall be drilled in vertical alignment.
  - (v) 2 Nos. holes of size 18 mm (dia) which are 'A' distance apart as shown in the drg. shall be drilled at site to suit the requirement of poles and are out of the supplier's scope.
  - (vi) It shall be noted that appearance of a sound weld is characterized by uniformly ripped surface, even contours and bead width, and absence of external defects such as under cut, blow holes, surface cracks etc.
  - (vii) The cross arms shall be fabricated exactly as per drawing, out of single piece of Mild Steel channel of size 100x50 mm.
  - (viii) The minimum guaranteed weight of each finished Cross Arms shall be 16.55 Kg.
- 1.3** **TOLERANCES:**
- (a) Dimension of Steel Cross Arms as shown and mentioned in the Drg. are minimum subject to plus tolerances.
  - (b) Steel Section shall have tolerances as per relevant I.S.S.
- 1.4** **PAINTING:** Each Steel Cross Arms shall be painted with double coat of primer red oxide of Narolac/Asian /Jonson/ shalimar & Nicholson/Burger (British)Makes.
- 1.5** **MARKING** :A marking of PVVNL-MT/MM/36/24-25(Sl. No.) Supplier's Trade Name or Mark "shall be shall be painted in black through stencil on each Steel Cross Arms in the contour.